CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION

MANAGING METHYL BROMIDE SEASONAL EXPOSURE

SEPTEMBER 2003

MANAGING METHYL BROMIDE SEASONAL EXPOSURE TO COMMUNITIES

The Department of Pesticide Regulation (DPR) proposes to enhance its controls on methyl bromide use. The goal is to ensure that during peak use seasons, methyl bromide air levels will not pose health risks to communities near application sites. Our scientists determined that to protect community health, methyl bromide in air should not exceed a monthly average of 9 parts per billion. The proposed controls are a mechanism to keep air concentrations below the target level.

USING AIR STUDIES AND PESTICIDE USE DATA TO PREDICT AIR CONCENTRATIONS

DPR wants to ensure communities are protected from potential exposure to methyl bromide over both the short-term (one day) and longer-term (several weeks). Regulations that went into effect in 2001 protected against short-term exposure. A new package of regulatory controls will put into place protections against long-term exposure.

Methyl bromide, injected into the soil, off-gasses for several days after application. Long-term exposure concerns arise from a *series* of methyl bromide applications in a particular area. Therefore, regulating *individual* applications (the focus of the 2001 regulations) is an impractical way to achieve long-term air concentration targets. To develop a more efficacious means of managing methyl bromide use, staff analyzed a range of regulatory options. Since regulating multiple pesticide sources over a period of weeks has not been done previously, we had to develop new controls. Our proposed solution is to limit the amount of methyl bromide that can be used in a specified period and area.

To determine how effective this approach was in achieving target air levels, we compared monitored air concentrations of methyl bromide to how much methyl bromide was used in the area monitored. We found a reasonable correlation could be made at varying distances around air samplers. We decided townships would be the most effective size area to control, taking into consideration the correlation found in our analysis, the ease of tracking methyl bromide use, and the practicality of enforcing compliance.

Based on our analysis, limiting methyl bromide use within a township to no more than 270,000 pounds in any given month will result in monthly averaged air concentrations below 9 ppb. This monthly limit is the ***township cap.***

A TOWNSHIP CAP IS:

- **Based on DPR's analysis, limiting methyl bromide use within a township to no more than 270,000 pounds in any given month will result in monthly averaged air concentrations below 9 ppb, protecting communities from potential adverse effects of methyl bromide. This monthly limit is the *township cap*. (A township is a land surveying unit 6 miles by 6 miles square.)**

HOW WILL THE TOWNSHIP CAP BE MANAGED?

For townships deemed likely to approach the cap, DPR will work with the County Agricultural Commissioners to ensure appropriate controls are in place. One option is to limit methyl bromide use through the permit and notice-of-intent process. (A permit from the Commissioner is required to use methyl bromide; the Commissioner can deny or withdraw permits. Permitees must also notify the Commissioner of a proposed use of methyl bromide 48 hours before application. The Commissioner can delay or deny the requested use.)

In the coming year, we will be working with the Agricultural Commissioners to explore other, less

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MANAGING THE TOWNSHIP CAP *(CONTINUED)*

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resource-intensive options. One method being discussed would be a countywide increase in buffer zone distances and durations. This is designed achieve the same goal of ensuring target levels are not exceeded, and would not require that use be tracked.

We are also exploring mechanisms to place regulatory requirements on methyl bromide registrants, commercial applicators, and dealers to increase their role in managing the township cap.

Our goal is to ensure there are no loopholes in controlling seasonal exposures. We will make every effort to ensure the agricultural community will adhere to these limits through their own management. Ultimately, primary responsibility for limiting methyl bromide use rests with DPR and the County Agricultural Commissioners using our regulatory tools.

HOW WILL YOU IDENTIFY TOWNSHIPS TO BE TRACKED?

The vast majority of townships in the State have no or relatively little methyl bromide applied. Therefore, we expect to focus on townships that are likely to approach or exceed the cap.

Annually, DPR will analyze historic and the most recent pesticide use data to determine which townships may approach or exceed the cap in the coming year. Townships where use is expected to be within 80% of the cap will be candidates for tracking and use control via township caps.

Each fall, DPR will provide Agricultural Commissioners and the public with information on townships that may need to be tracked. Based on past pesticide use data, this potentially could occur in townships in Monterey, Santa Cruz, Santa Barbara, and Ventura counties. (Based on 2001 pesticide use data, we do not expect any townships to reach the monthly township cap in 2004.)

DPR will coordinate the management of methyl bromide use in townships whose boundaries cross county lines.

DPR already has the nation's strictest controls on methyl bromide use. The new regulations will enhance these protections.

HOW WILL METHYL BROMIDE USE BE ALLOCATED?

Limiting use raises questions about who gets to use methyl bromide. Those decisions will be left with methyl bromide dealers. Our focus will be to ensure seasonal exposure levels are not exceeded.

DPR will work closely with the Agricultural Commissioners to try to prevent confusion and disruption that could result from these geographic controls on methyl bromide use. For those townships identified by DPR for tracking, we will provide information to the agricultural community to give methyl bromide users an opportunity to explore alternative scheduling, reduced application rates, different pesticides, or other mitigation methods.

ABOUT THE DEPARTMENT OF PESTICIDE REGULATION

The California Department of Pesticide Regulation (DPR) protects human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. DPR's strict oversight includes product evaluation and registration, environmental monitoring, residue testing of fresh produce, and local use enforcement through the county agricultural commissioners. DPR is one of six boards and departments within the California Environmental Protection Agency.